

## Abstract

A device and a method for the reduction of sound emissions from an internal combustion engine in an exhaust line carrying an exhaust gas flow. The device has a first sound transducer for converting sound waves into first signals, that are a measure of the frequency, amplitude and phase of the sound waves, an electronic control unit for converting the first signals into second signals, and a second sound transducer, that is centrally arranged in the exhaust gas flow for converting the second signals into compensating sound waves, that have a frequency, amplitude, and phase such that the sound waves and the compensating sound waves at least partially cancel one another out. The device may also be used for diagnosis of the condition and running of the internal combustion engine. If so, the device may include a comparator unit, in which the first signals are compared with reference signals.